

Claims

1. Filter element comprising a filter medium (10), which extends between two end caps (12, 14) which are each connected to one assignable end area (16, 18) of the filter medium (10) which is supported at least on one side on a support tube (20), characterized in that at least one of the end caps (14) and/or at least one end area (16, 18) of the filter medium (10) has a contact-making means (22) and/or the respective end cap (14) itself or parts of it are made dissipative, for purposes of dissipating the electrostatic charges which occur in particular in filter element operation.
2. The filter element as claimed in claim 1, wherein the contact-making means (22) consists of dissipative contact elements which penetrate a cement bed (26) which forms a type of insulating layer between the end cap (14) and the end area (18) of the filter medium (10) accommodated by this end cap (14) and in this way come into dissipative contact with the filter medium (10).
3. The filter element as claimed in claim 1, wherein to form the dissipative end cap (14) or its parts, plastics with a conductivity additive, conductive coatings, or intrinsically conductive plastics are used.
4. The filter element as claimed in claim 2, wherein the conductive contact elements consist of contact pins (24) which with their one end penetrate in the cement bed (26), and in the area of the other free end stand vertically upright on the respectively assignable end cap (14).
5. The filter element as claimed in one of claims 1 to 4, wherein the filter medium (10) consists of a pleated or cylindrically shaped filter mat with filter plies in several layers on top of each other which consist entirely or partially of dissipative plastic materials.

6. The filter element as claimed in claim 5, wherein the filter mat is reinforced at least on the outer and/or inner peripheral side with fabric materials of plastic or metal.
7. The filter element as claimed in one of claims 1 to 6, wherein the filter medium (10) in the flow direction is supported on the support tube (20) which is provided with passages and which consists preferably of a plastic material.
8. The filter element as claimed in one of claims 4 to 7, wherein the contact pins (24) consist of a conductive metal or a dissipative plastic.
9. The filter element as claimed in one of claims 4 to 8, wherein the contact pins (24) are configured in concentric circles to the longitudinal axis (30) of the filter element in at least one (14) of the two end caps.
10. The filter element as claimed in one of claims 1 to 9, wherein at least one end cap (14) is provided to the inside and outside with at least one respective projecting annular surface (28) each between which the end area (18) of the filter medium (10) can be accommodated.
11. The filter element as claimed in one of claims 1 to 10, wherein the respective end cap (14) with the contact-making means (22) has a connecting part (32) for fixing the filter element in a filter housing and wherein a sealing means (34), especially in the form of an O-ring which is located between the filter housing and the end cap (14) of the filter element, is made dissipative.